A Regime-Dependent Assessment of the Information Transmission between Oil Prices, Precious Metal Prices and Exchange Rates

Nwin-Anefo Fru Asaba (Eastern Mediterranean University, Turkish Republic of Northern Cyprus)

This paper examines information transmission between oil spot price movements, precious metals (gold, silver, platinum and palladium), and the dollar/euro exchange rate using data from 1987 to 2012. We use a Markov-Switching Vector Error Correction Model (MS-VECM) in which parameters fluctuate depending on a specific regime in the economy. Regime dependent impulse response functions (RDIRF) trace the direction of the impact of these dynamic responses or shocks in the system. The research finds evidence that apart from a short run relationship between these commodity spot prices, there also exist a persistent long run equilibrium relationship between the precious metals, oil and the dollar/euro exchange rate. Evidence from the Generalized Forecast Error Variance Decomposition (VDC) shows variations in the prices of these commodities resulting from both own innovations as well as shocks from other variables in the series.

The short run reaction to unexpected innovations is however short lived (only up to 2 days) with possible instinctive overreaction for one more day in the case of platinum and palladium. Regardless of this possibility of overreaction, investors and traders can diversify away from risky investments by incorporating precious metals and oil in their investment portfolios. Some strategic policy implications are provided.

Keywords: Generalized variance Decomposition, Markov-Switching VECM, oil prices, precious metal prices, regime-dependent impulse response function.